16.08.2014
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Datasheet - BN 20-11RZ

Magnetic reed switch / BN 20

☒ Preferred typ

(Minor differences between the printed image and the original product may exist!)

- Non-contact principle
- With pre-wired cable
- 2 reed contacts
- 1 Reed contakts
- Long life
- 104 mm x 52 mm x 47 mm
- Aluminium enlosure
- Actuating distance up to 50 mm depending on actuating magnet and version
- Screw connection
- Highly resistant to vibration
- Available for actuation from front or side

Ordering details

Product type description	BN 20-11RZ
Article number	101165310
EAN code	4030661208909

Approval

Approval	-

Global Properties

Product name	BN 20
Standards	-
Compliance with the Directives (Y/N) CE	Yes
suitable for elevators (Y/N)	No
Active principle	Magnetic drive
Materials	
- Material of the housings	Aluminium
- Material of the active surface	Metal film
Housing construction form	rectangular
Weight	298 g
Recommended actuator	BP 10N, BP 10S, 2 x BP 10N, 2 x BP 10S, BP 15N, BP 15S, 2 x BP 15/2N, 2 x BP 15/2S, BP 34N, BP 34S, BP 20N, BP 20S, BP 31N, BP 31S, BP 11N, BP 11S, 2 x BP 11N, 2 x BP 11S, BP 12N, BP 12S, 2 x BP

	12N, 2 x BP 12S, BP 21 N, BP 21S, 2 x BP 21N, 2 x BP 21S, BE 20N, BE 20S

Mechanical data

Design of electrical connection	Screw connection
Mechanical life	1.000.000.000 operations
Electrical lifetime	1.000.000 … 1.000.000.000 operations
Switching frequency	max. 300/s
Actuating planes	Actuation from side
Active area	lateral
Switch distance S_n	5 mm … 50 mm BP 10N = 5 mm BP 10S = 5 mm 2 x BP 10N = 10 mm 2 x BP 10S = 10 mm BP 15N = 7 mm BP 15S = 7 mm 2 x BP 15/2N = 15 mm 2 x BP 15/2S = 15 mm BP 34N = 10 ... 25 mm BP 34S = 10 ... 25 mm BP 20N = 15 mm BP 20S = 15 mm BP 31N = 15 mm BP 31S = 15 mm BP 11N = 5 mm BP 11S = 5 mm 2 x BP 11N = 15 mm 2 x BP 11S = 15 mm BP 12N = 10 mm BP 12S = 10 mm 2 x BP 12N = 5 ... 20 mm 2 x BP 12S = 5 ... 20 mm BP 21 N = 10 ... 35 mm BP 21 S = 10 ... 35 mm 2 x BP 21N = 15 ... 50 mm 2 x BP 21S = 15 ... 50 mm BE 20N = 10 mm BE 20S = 10 mm
- notice	Actuating distance up to 50 mm depending on actuating magnet and version
Type of actuation	Magnet
restistance to shock	-
resistant to vibration	50 g, on sine wave oscillation
Bounce duration	0,3 ms … 0,6 ms
Latching (Y/N)	No
bias magnet (Y/N)	Yes
Actuating speed	max. 18 m/s
Switching point accuracy	± 0,25 mm

Ambient conditions

Ambient temperature	
- Min. environmental temperature	−25 °C
- Max. environmental temperature	+90 °C
Protection class	IP67

Electrical data

Design of control element	bistable contact, Opener (NC) / Normally open contact (NO)
Number of snap-in contacts	2

Switching time - Close	0,3 ms - 1.5 ms
Switching time - Open	max. 0,5 ms
Voltage type	VAC
Dielectric strength	> 600 VAC (50 Hz)
Switching voltage	max. 250 VAC
Switching current	max. 3 A
Switching capacity	max. 120 VA / W

Outputs

Design of control output	Reed contakts

LED switching conditions display

LED switching conditions display (Y/N)	No

ATEX

Explosion protection categories for gases	None
Explosion protected category for dusts	None

Dimensions

Dimensions of the sensor	
- Width of sensor	104 mm
- Height of sensor	52 mm
- Length of sensor	47 mm

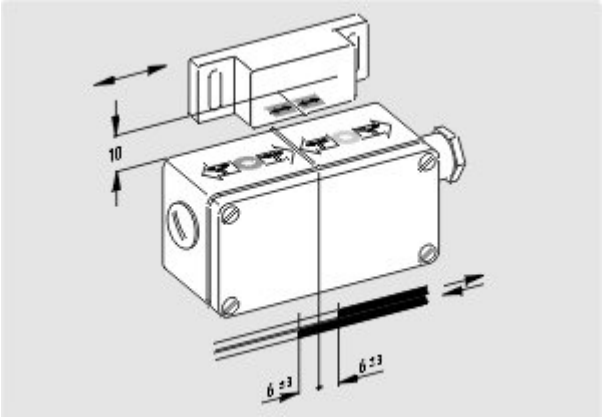
notice

The opening and closing functions depend on the direction of actuation, the actuating magnets and the polarity of the actuating magnets.
When the switches and actuators come together, the colours must coincide: Red (S) to red (S) and green (N) to green (N).

Included in delivery

Actuators must be ordered separately.

Diagram



Note Diagram

⊖ positive break NC contact

active
no active
Normally-open contact
Normally-closed contact

Documents

Declaration of conformity (en) 118 kB, 26.02.2014
Code: __bn_p01_en

Declaration of conformity (de) 188 kB, 10.07.2012
Code: __bn_p01

notice - Switch distance (de) 36 kB, 07.08.2009
Code: s_bnsp01

notice - Switch distance (nl) 39 kB, 07.08.2009
Code: s_bnsp04

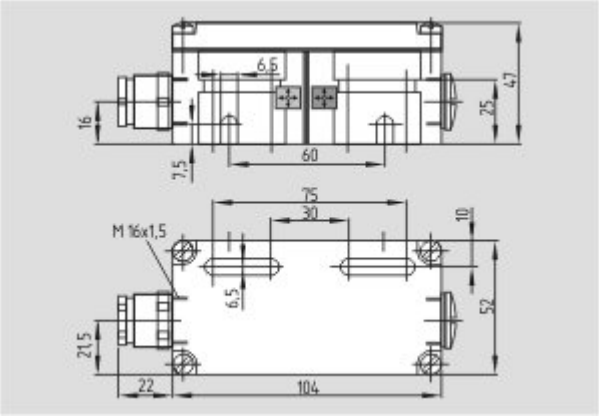
notice - Switch distance (fr) 41 kB, 07.08.2009
Code: s_bnsp03

notice - Switch distance (pt) 39 kB, 07.08.2009
Code: s_bnsp10

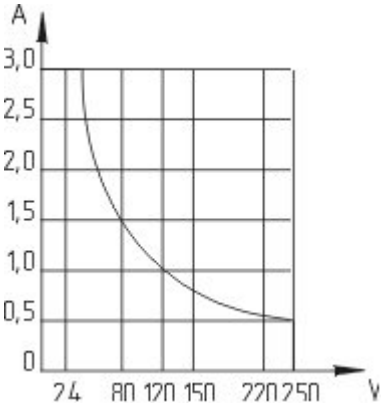
notice - Switch distance (it) 40 kB, 07.08.2009
Code: s_bnsp05

notice - Switch distance (es) 38 kB, 07.08.2009
Code: s_bnsp09

Images



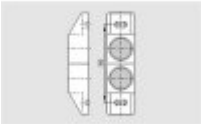
Dimensional drawing (basic component)



Characteristic curve

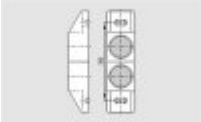
System components

Actuator



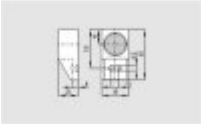
101059927 - BP 2x21 S

- Al-metal housing
- S-pole marked red
- Suitable for mounting on ferrous material



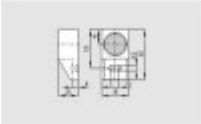
101059928 - BP 2x21 N

- Al-metal housing
- N-pole marked green
- Suitable for mounting on ferrous material



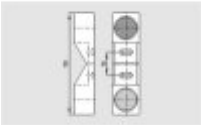
101057534 - BP 21 S

- Al-metal housing
- S-pole marked red
- Suitable for mounting on ferrous material



101057536 - BP 21 N

- Al-metal housing
- N-pole marked green
- Suitable for mounting on ferrous material

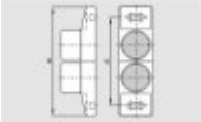


101059921 - BP 21

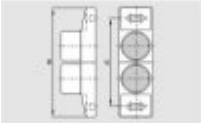
- Al-metal housing
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material

101059926 - BP 2x12 S

- Al-metal housing

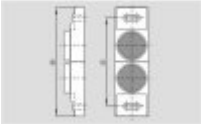


• S-pole marked red
• Suitable for mounting on ferrous material



101059925 - BP 2x12 N

• Al-metal housing
• N-pole marked green
• Suitable for mounting on ferrous material

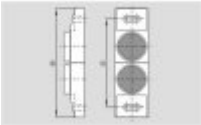


101059917 - BP 12 N

• Al-metal housing
• N-pole marked green
• Suitable for mounting on ferrous material

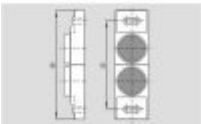
101059916 - BP 12

• Al-metal housing
• S-pole marked red
• N-pole marked green
• Suitable for mounting on ferrous material



101059930 - BP 2x11 S

• Al-metal housing
• S-pole marked red
• Suitable for mounting on ferrous material



101059929 - BP 2x11 N

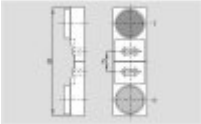
• Al-metal housing
• N-pole marked green
• Suitable for mounting on ferrous material

101057533 - BP 11 S

• Al-metal housing
• S-pole marked red
• Suitable for mounting on ferrous material

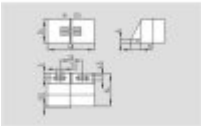
101059923 - BP 11 N

• Al-metal housing
• N-pole marked green
• Suitable for mounting on ferrous material



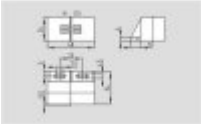
101059922 - BP 11

- Al-metal housing
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material



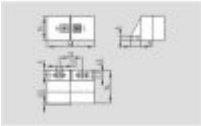
101057521 - BP 31 S

- thermoplastic enclosure
- S-pole marked red
- Suitable for mounting on ferrous material with a distance of 20 mm



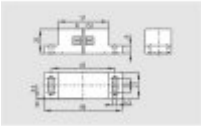
101057520 - BP 31 N

- thermoplastic enclosure
- N-pole marked green
- Suitable for mounting on ferrous material with a distance of 20 mm



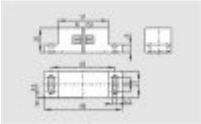
101057530 - BP 31

- thermoplastic enclosure
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material with a distance of 20 mm



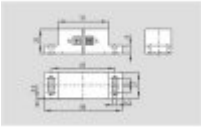
101057541 - BP 20 S

- Al-metal housing
- S-pole marked red
- Suitable for mounting on ferrous material with a distance of 20 mm



101057538 - BP 20 N

- Al-metal housing
- N-pole marked green
- Suitable for mounting on ferrous material with a distance of 20 mm

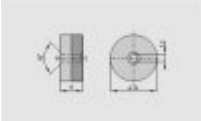


101057549 - BP 20

- Al-metal housing
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material with a distance of 20 mm

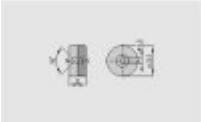
101057553 - BP 34

- thermoplastic enclosure
- S-pole marked red
- N-pole marked green
- Suitable for mounting on ferrous material with a distance of 25 mm



101060165 - BP 15/2

- Unenclosed
- Polarity stamped in
- Suitable for mounting on ferrous material with a distance of 18 mm



101060163 - BP 15

- thermoplastic enclosure
- N-pole marked green
- S-pole marked red
- Suitable for mounting on ferrous material with a distance of 18 mm

101057531 - BP 10

- Unenclosed
- Colour coding of poles by lables

Image

Image
et=sS